

WHAT IS CLAIMED IS:

1 1. A wireless telephone, including:

2 an enclosure;

3 an antenna; and

4 an antenna system, including,

5 a housing containing the antenna, the antenna housing being mounted
6 to the enclosure for movement between a first position to hold the antenna in a
7 retracted position and a second position for extending the antenna, and

8 a bias member coupled to the antenna housing to bias the antenna
9 housing toward the second position.

1 2. A wireless telephone of a type formed from first and second phone

2 parts pivotally joined together to allow the first phone part to open from a folded position
3 with the second phone part for use, the first and second phone parts forming an enclosure,
4 and including:

5 an antenna housing mounted to the second phone part for movement from a
6 first position within the second part to an extended position;

7 an antenna mounted in the housing;

8 a release element mounted to hold the antenna housing in the first position;

9 and

10 a bias member to bias the antenna housing to the extended position when the
11 release member is disposed to release the antenna housing.

1 3. The wireless telephone of claim 2, wherein the bias member is a

2 spring.

1 4. The wireless telephone of claim 3, wherein the bias member is a

2 helical spring.

1 5. The wireless telephone of claim 2, wherein the antenna housing is

2 pivotally mounted to the second phone part to pivot to the second position when released by
3 the release member.

1 6. The wireless telephone of claim 5, wherein the antenna is
2 telescopically mounted in the antenna housing to be extracted from the antenna housing when
3 in the second position.

1 7. The wireless telephone of claim 2, the release member including tab
2 formed on the antenna housing, the first phone part having a recess formed and configured to
3 receive and hold the tab when the first phone part is in the folded position, holding the
4 antenna housing in the first position.

1 8 A wireless telephone, including;
2 an outer shell forming an enclosure having an opening;
3 an antenna holder mounted in the enclosure and having an end located
4 proximate the opening;
5 an antenna releasably held in the antenna holder for movement between a
6 retracted position within the antenna holder and a second position extending from the antenna
7 holder and through the opening;
8 a movable latch member mounted to releasably hold the antenna in the
9 antenna holder; and
10 a bias coupled to the antenna to move the antenna from the first position to the
11 second position when the moveable latch member is moved to release the antenna.

1 9. A wireless telephone, including:
2 an enclosure for housing working elements of the wireless telephone, the
3 enclosure having at least a partial recess;
4 an antenna system, including,
5 an antenna,
6 a housing, containing the antenna, pivotally mounted to the enclosure
7 for movement between a retracted position and an extended position; the recess being
8 formed and configured to hold the housing when in the retracted position, and
9 a bias member coupled to the antenna housing to bias the antenna
10 housing toward the second position.

1 10. The wireless telephone of claim 9, wherein the enclosure includes a
2 first phone part and a second phone part pivotally joined for the first phone part to move from
3 a folded position juxtaposed with the second phone part to an open position, there being

4 formed in the first part a barrel having a notch, the housing having a terminal end with a tab
5 formed to extend therefrom captured by the barrel, whereby the housing is released to move
6 toward the second position when the first phone part rotates from the folded position to the
7 second position to let the tab pass through the notch.

1 11. A wireless telephone of a type having an enclosure for housing
2 working and electronic elements of the wireless telephone, the enclosure having at least a
3 partial recess, and including

4 an antenna system, including,

5 an antenna,

6 a housing, containing the antenna, pivotally mounted to the enclosure
7 for movement between a retracted position and an extended position; the recess being
8 formed and configured to hold the housing when in the retracted position, and
9 a captivation system, including a detent, to releaseably hold the
10 housing in the retracted and extended positions.

11 12. The wireless telephone of claim 11, wherein the detent includes a
12 spring mounted to the enclosure and a detent member mounted to the housing.

13 13. The wireless telephone of claim 12, including a bend in the spring, and
14 wherein the detent member has formed therein first and second notches, spring and detent
15 member being positioned so that the first notch matingly engages the bend to hold the
16 housing in the retracted position and the second notch matingly engages the bend to hold the
17 housing in the extended position.

18 14. The wireless telephone of claim 11, the wherein the antenna is
19 movably mounted to telescopically extend from and retract into the housing.